

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/743,280A  
Source: jFwo  
Date Processed by STIC: 1/4/05

***ENTERED***



IFWO

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/743,280A

DATE: 01/04/2005

TIME: 12:32:50

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
 Output Set: N:\CRF4\01042005\J743280A.raw

```

3 <110> APPLICANT: Evolutec Limited
5 <120> TITLE OF INVENTION: Ion Channel Modulators
8 <130> FILE REFERENCE: 2488-1-008
11 <140> CURRENT APPLICATION NUMBER: 10/743,280A
12 <141> CURRENT FILING DATE: 2003-12-22
14 <150> PRIOR APPLICATION NUMBER: PCT/GB02/002919
15 <151> PRIOR FILING DATE: 2002-06-21
17 <150> PRIOR APPLICATION NUMBER: GB0115363.4
18 <151> PRIOR FILING DATE: 2001-06-22
20 <160> NUMBER OF SEQ ID NOS: 69
22 <170> SOFTWARE: SeqWin99
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 18
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: PCR primer - T7
32 <400> SEQUENCE: 1
33 taataacgact cactata 18
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 18
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: PCR primer - T3
44 <400> SEQUENCE: 2
45 aattaaccct cactaaag 18
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 20
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: PCR primer - HF1
56 <220> FEATURE:
57 <221> NAME/KEY: misc_feature
58 <222> LOCATION: 12, 15, 18
59 <223> OTHER INFORMATION: n = a, c, g, or t
61 <400> SEQUENCE: 3
W--> 62 gaygartgyc cnmgnatntg 20
65 <210> SEQ ID NO: 4
66 <211> LENGTH: 18
67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial Sequence

```

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Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
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70 <220> FEATURE:  
 71 <223> OTHER INFORMATION: PCR primer - HF2  
 73 <220> FEATURE:  
 74 <221> NAME/KEY: misc\_feature  
 75 <222> LOCATION: 9, 12, 15  
 76 <223> OTHER INFORMATION: n = a, c, g, or t  
 78 <400> SEQUENCE: 4  
**W--> 79 gartgyccnm gnatntgy** 18  
 82 <210> SEQ ID NO: 5  
 83 <211> LENGTH: 17  
 84 <212> TYPE: DNA  
 85 <213> ORGANISM: Artificial Sequence  
 87 <220> FEATURE:  
 88 <223> OTHER INFORMATION: PCR primer - HF3  
 90 <220> FEATURE:  
 91 <221> NAME/KEY: misc\_feature  
 92 <222> LOCATION: 3, 9  
 93 <223> OTHER INFORMATION: n = a, c, g, or t  
 95 <400> SEQUENCE: 5  
**W--> 96 acn ttyggna aycartg** 17  
 99 <210> SEQ ID NO: 6  
 100 <211> LENGTH: 20  
 101 <212> TYPE: DNA  
 102 <213> ORGANISM: Artificial Sequence  
 104 <220> FEATURE:  
 105 <223> OTHER INFORMATION: PCR primer - HR1  
 107 <400> SEQUENCE: 6  
 108 aataacaacat attcaagtgg 20  
 111 <210> SEQ ID NO: 7  
 112 <211> LENGTH: 31  
 113 <212> TYPE: DNA  
 114 <213> ORGANISM: Artificial Sequence  
 116 <220> FEATURE:  
 117 <223> OTHER INFORMATION: PCR primer - HF6  
 119 <400> SEQUENCE: 7  
 120 gtacggatcc atgaaatttg ccttggttcag t 31  
 123 <210> SEQ ID NO: 8  
 124 <211> LENGTH: 52  
 125 <212> TYPE: DNA  
 126 <213> ORGANISM: Artificial Sequence  
 128 <220> FEATURE:  
 129 <223> OTHER INFORMATION: PCR primer - HR3  
 131 <400> SEQUENCE: 8  
 132 catgctgcag ttagtgatgg tgatggatgat gacccttgca ctgcgcata tg 52  
 135 <210> SEQ ID NO: 9  
 136 <211> LENGTH: 19  
 137 <212> TYPE: DNA  
 138 <213> ORGANISM: Artificial Sequence  
 140 <220> FEATURE:

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/743,280A  
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 Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
 Output Set: N:\CRF4\01042005\J743280A.raw

141 <223> OTHER INFORMATION: Primer - PFBR  
 143 <400> SEQUENCE: 9  
 144 gattatgatc ctcttagtac 19  
 147 <210> SEQ ID NO: 10  
 148 <211> LENGTH: 20  
 149 <212> TYPE: DNA  
 150 <213> ORGANISM: Artificial Sequence  
 152 <220> FEATURE:  
 153 <223> OTHER INFORMATION: Primer - PFBF  
 155 <400> SEQUENCE: 10  
 156 tattccggat tattcatacc 20  
 159 <210> SEQ ID NO: 11  
 160 <211> LENGTH: 76  
 161 <212> TYPE: PRT  
 162 <213> ORGANISM: Hybomitra bimaculata  
 164 <220> FEATURE:  
 165 <221> NAME/KEY: SIGNAL  
 166 <222> LOCATION: 1-20  
 168 <400> SEQUENCE: 11  
 169 Met Lys Phe Ala Leu Phe Ser Val Leu Val Val Leu Leu Ile Ala Thr  
 170 1 5 10 15  
 172 Phe Val Ala Ala Asp Glu Cys Pro Arg Ile Cys Thr Ala Asp Tyr Arg  
 173 20 25 30  
 175 Pro Val Cys Gly Thr Pro Ser Gly Gly Arg Arg Ser Ala Asn Arg Thr  
 176 35 40 45  
 178 Phe Gly Asn Gln Cys Ser Leu Asn Ala His Asn Cys Leu Asn Lys Gly  
 179 50 55 60  
 181 Asp Thr Tyr Asp Lys Leu His Asp Gly Glu Cys Lys  
 182 65 70 75  
 185 <210> SEQ ID NO: 12  
 186 <211> LENGTH: 331  
 187 <212> TYPE: DNA  
 188 <213> ORGANISM: Hybomitra bimaculata  
 190 <220> FEATURE:  
 191 <221> NAME/KEY: CDS  
 192 <222> LOCATION: 56-285  
 195 <220> FEATURE:  
 196 <221> NAME/KEY: misc\_feature  
 197 <222> LOCATION: 48  
 198 <223> OTHER INFORMATION: n = a, c, g, or t  
 200 <400> SEQUENCE: 12  
 W--> 201 gtttagttca gtttttatag taaccaggttc taaaagttta ataacatnaa tcaaaatgaa 60  
 202 atttgccttg ttcaagtgtt tagttgtct gctgattgca acatttgttg cggctgatga 120  
 203 atgcccacgt atttgcacgg ctgactatacg accggtatgc ggcactccct ctggtggtcg 180  
 204 ccgaagtgc aacaggactt ttggaaacca attagcctc aacgcccaca actgcttgaa 240  
 205 caagggagat acttacgaca aactgcata tggcgagtgc aagtaaaaag gacaagtccc 300  
 206 aggaatatta ttgactccac ttgaatatgt a 331  
 209 <210> SEQ ID NO: 13  
 210 <211> LENGTH: 61

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/10/743,280A  
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 TIME: 12:32:50  
 Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
 Output Set: N:\CRF4\01042005\J743280A.raw

211 <212> TYPE: PRT  
 212 <213> ORGANISM: Artificial Sequence  
 214 <220> FEATURE:  
 215 <223> OTHER INFORMATION: Kazal-type inhibitor consensus  
 217 <400> SEQUENCE: 13  
 218 Cys Ser Arg Tyr Pro Asn Pro Thr Ser Lys Asp Gly Lys Leu Val Ala  
 219 1 5 10 15  
 221 Cys Pro Arg Glu Tyr Asp Pro Val Cys Gly Ser Asp Gly Val Thr Tyr  
 222 20 25 30  
 224 Ser Asn Glu Cys Glu Leu Lys Lys Ala Ala Cys Ala Glu Asn Val Glu  
 225 35 40 45  
 227 Gln Gly Thr Asn Ile Glu Lys Lys His Asp Gly Pro Cys  
 228 50 55 60  
 231 <210> SEQ ID NO: 14  
 232 <211> LENGTH: 7  
 233 <212> TYPE: PRT  
 234 <213> ORGANISM: Hybomitra bimaculata  
 236 <400> SEQUENCE: 14  
 237 Pro Ser Gly Gly Arg Arg Ser  
 238 1 5  
 240 <210> SEQ ID NO: 15  
 241 <211> LENGTH: 43  
 242 <212> TYPE: PRT  
 243 <213> ORGANISM: Rhodnius prolixus  
 245 <400> SEQUENCE: 15  
 246 Cys Ala Cys Pro His Ala Leu His Arg Val Cys Gly Ser Asp Gly Glu  
 247 1 5 10 15  
 249 Thr Tyr Ser Asn Pro Cys Thr Leu Asn Val Ala Lys Phe Gly Lys Glu  
 250 20 25 30  
 252 Pro Glu Leu Val Lys Val His Asp Gly Pro Cys  
 253 35 40  
 255 <210> SEQ ID NO: 16  
 256 <211> LENGTH: 45  
 257 <212> TYPE: PRT  
 258 <213> ORGANISM: Rhodnius prolixus  
 260 <400> SEQUENCE: 16  
 261 Cys Gln Glu Cys Asp Gly Asp Glu Tyr Lys Pro Val Cys Gly Ser Asp  
 262 1 5 10 15  
 264 Asp Ile Thr Tyr Asp Asn Asn Cys Arg Leu Glu Cys Ala Ser Ile Ser  
 265 20 25 30  
 267 Ser Ser Pro Gly Val Glu Leu Lys His Glu Gly Pro Cys  
 268 35 40 45  
 270 <210> SEQ ID NO: 17  
 271 <211> LENGTH: 45  
 272 <212> TYPE: PRT  
 273 <213> ORGANISM: Anemonia sulcata  
 275 <400> SEQUENCE: 17  
 276 Cys Pro Leu Ile Cys Thr Met Gln Tyr Asp Pro Val Cys Gly Ser Asp  
 277 1 5 10 15

## RAW SEQUENCE LISTING

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TIME: 12:32:50

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
 Output Set: N:\CRF4\01042005\J743280A.raw

279 Gly Ile Thr Tyr Gly Asn Ala Cys Met Leu Leu Gly Ala Ser Cys Arg  
 280 20 25 30  
 282 Ser Asp Thr Pro Ile Glu Leu Val His Lys Gly Arg Cys  
 283 35 40 45  
 285 <210> SEQ ID NO: 18  
 286 <211> LENGTH: 46  
 287 <212> TYPE: PRT  
 288 <213> ORGANISM: Gallus gallus  
 290 <400> SEQUENCE: 18  
 291 Cys Lys Lys Thr Ala Cys Pro Val Val Ala Pro Val Cys Gly Ser  
 292 1 5 10 15  
 294 Asp Tyr Ser Thr Tyr Ser Asn Glu Cys Glu Leu Glu Lys Ala Gln Cys  
 295 20 25 30  
 297 Asn Gln Gln Arg Arg Ile Lys Val Ile Ser Lys Gly Pro Cys  
 298 35 40 45  
 300 <210> SEQ ID NO: 19  
 301 <211> LENGTH: 49  
 302 <212> TYPE: PRT  
 303 <213> ORGANISM: Homo sapiens  
 305 <400> SEQUENCE: 19  
 306 Cys Ser Gln Tyr Arg Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val  
 307 1 5 10 15  
 309 Cys Gly Ser Asp Met Ser Thr Tyr Ala Asn Glu Cys Thr Leu Cys Met  
 310 20 25 30  
 312 Lys Ile Arg Glu Gly Gly His Asn Ile Lys Ile Ile Arg Asn Gly Pro  
 313 35 40 45  
 315 Cys  
 318 <210> SEQ ID NO: 20  
 319 <211> LENGTH: 45  
 320 <212> TYPE: PRT  
 321 <213> ORGANISM: Gallus gallus  
 323 <400> SEQUENCE: 20  
 324 Cys Asp Phe Thr Cys Leu Ala Val Pro Arg Ser Pro Val Cys Gly Ser  
 325 1 5 10 15  
 327 Asp Asp Val Thr Tyr Ala Asn Glu Cys Glu Leu Lys Lys Thr Arg Cys  
 328 20 25 30  
 330 Glu Lys Arg Gln Asn Leu Val Thr Ser Gln Gly Ala Cys  
 331 35 40 45  
 333 <210> SEQ ID NO: 21  
 334 <211> LENGTH: 46  
 335 <212> TYPE: PRT  
 336 <213> ORGANISM: Rattus norvegicus  
 338 <400> SEQUENCE: 21  
 339 Cys Asp Phe Ser Cys Gln Ser Val Pro Arg Ser Pro Val Cys Gly Ser  
 340 1 5 10 15  
 342 Asp Gly Val Thr Tyr Gly Thr Glu Cys Asp Leu Lys Lys Ala Arg Cys  
 343 20 25 30  
 345 Glu Ser Gln Gln Glu Leu Tyr Val Ala Ala Gln Gly Ala Cys  
 346 35 40 45

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/04/2005  
PATENT APPLICATION: US/10/743,280A TIME: 12:32:52

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
Output Set: N:\CRF4\01042005\J743280A.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 12,15,18

Seq#:4; N Pos. 9,12,15

Seq#:5; N Pos. 3,9

Seq#:12; N Pos. 48

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/743,280A

DATE: 01/04/2005

TIME: 12:32:52

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
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L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0